

# New measures of ageing and policy implications



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UN Expert Group Meeting: Measuring  
Population Ageing: Bridging Research and  
Policy, 25-26 Feb 2019

# Doom and gloom

≡ TIME

China's Aging Population Is a Major Threat to Its Future



WORLD • CHINA

## China's Aging Population Is a Major Threat to Its Future



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### South Koreans Aren't Marrying or Even Dating, Report Says



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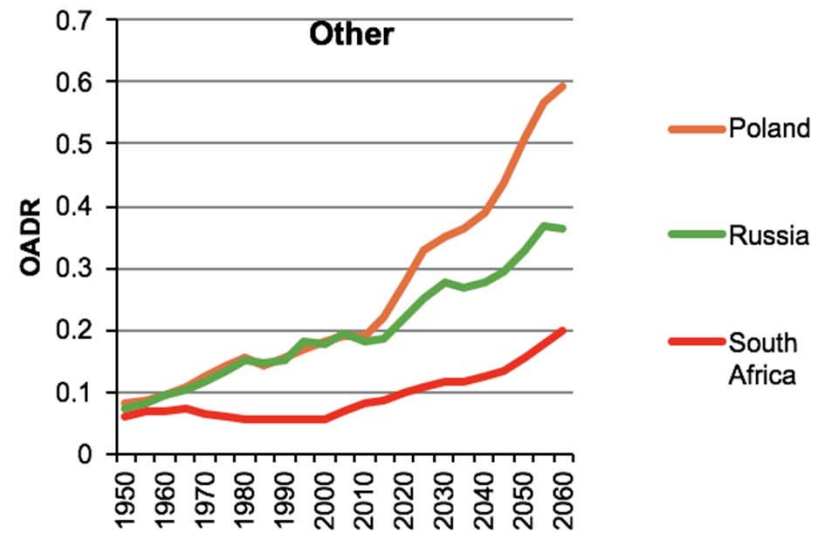
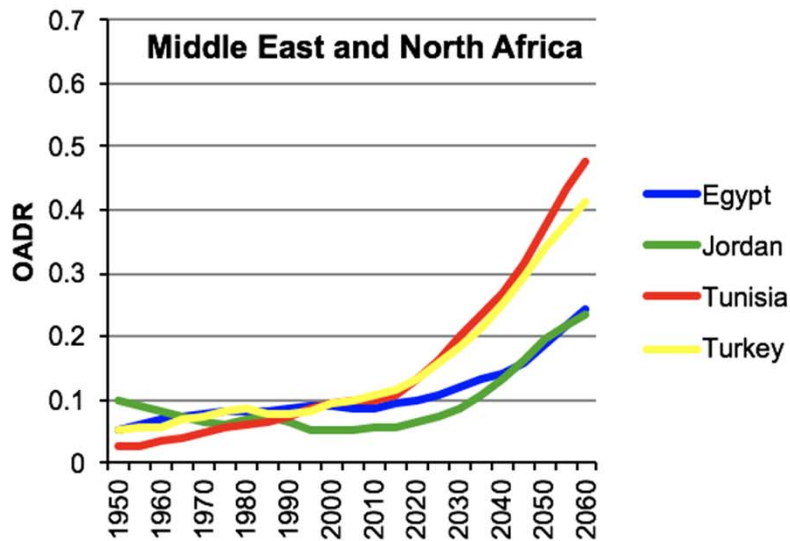
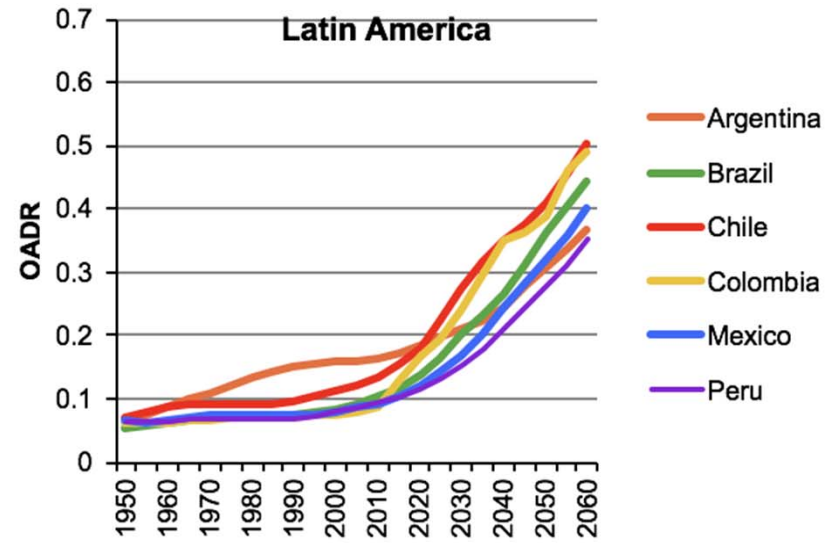
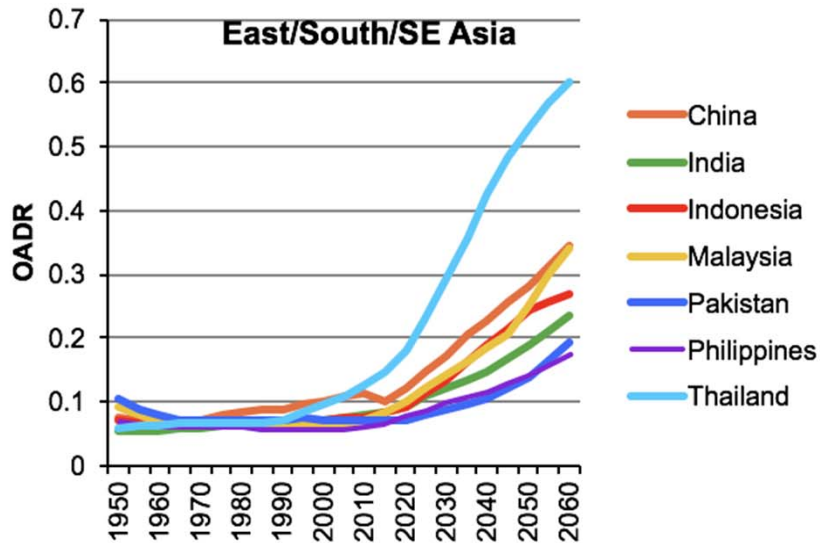
EAST ASIA

January 18, 2019 2:40 AM

Steve Miller

## South Korea Aims to Turn Around 'Extreme' Birth Rate Crisis

# OADR in EMs



# A range of 'better' concepts and measures



- **Measurement suites**
  - NTA
  - Pensioner-worker ratio; pension cost dependency ratios
  - Health care cost old-age dependency ratios
  - Economic dependency ratios
  - Prospective measures
- **Paradigms**
  - 'Demographic metabolism'
  - Compression of morbidity
  - Second Demographic Dividend

# Trade-offs



- **Comparative vs specific**
  - Generation of data; protocol?
  - E.g. pension systems?
- **Retrospective/current vs prospective**
  - Assumptions? Consistency?
  - Certainty of population projections by age/place
- **Ease of interpretation (for policymakers)**
  - NTAs?
- **Feedback and dimensions**
  - Pensions, health and welfare

# What can you do with them?

- **POADR:**

- Misinterpreted ‘retire at 75??’ 🤖
- ‘Nice, but too theoretical, hypothetical’

- **NTA**

- Tells us about now, but what about the future?

- **Pensioner-worker ratios**

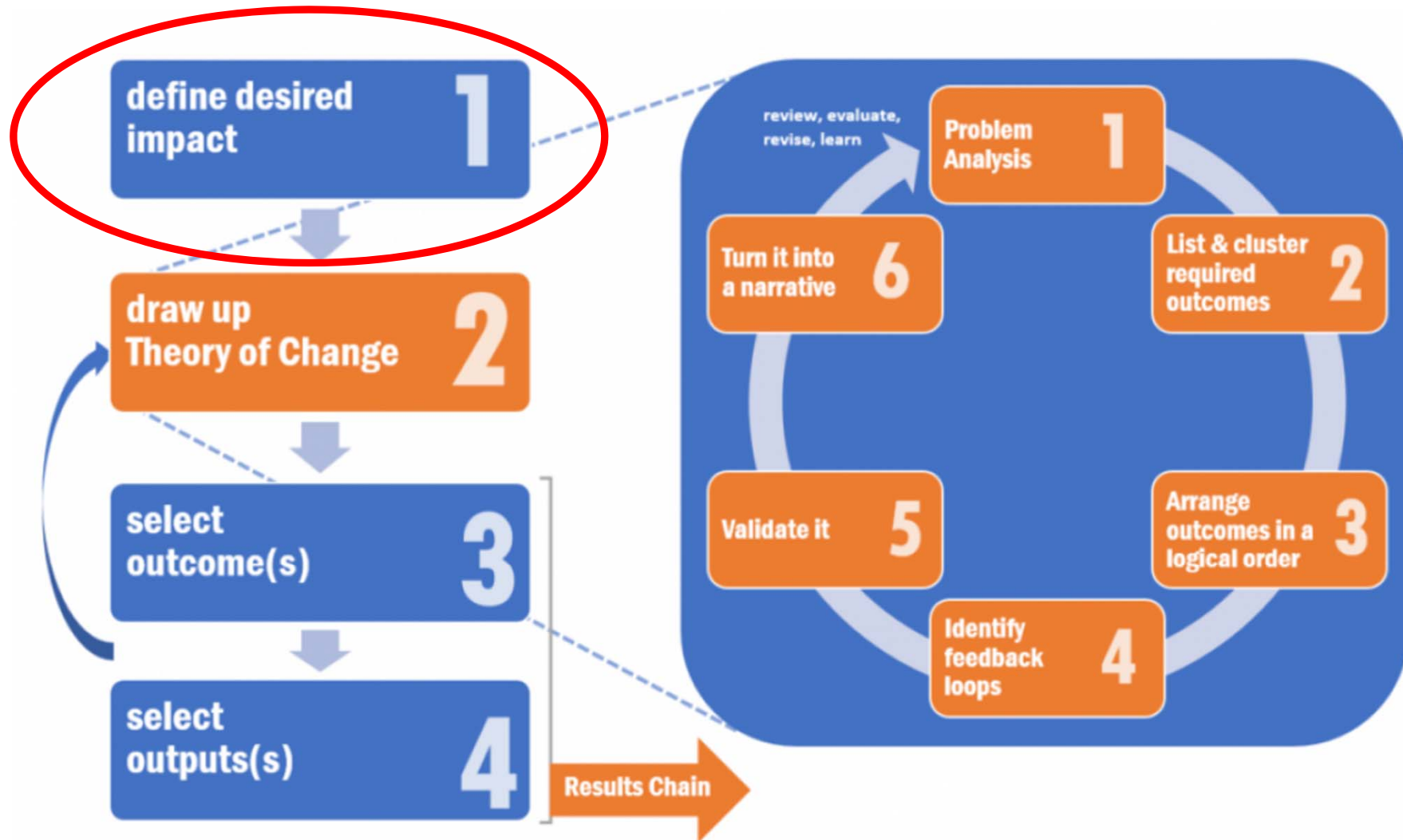
- Hugely complex fiscal econometrics
- *Economists laugh at demographers!*

# Maybe my imagination...



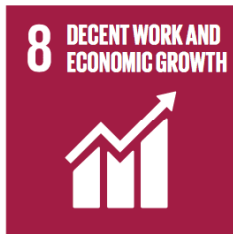
- Between demographers and other stakeholders
  - Measuring and estimating demand
  - Above PLUS broader aspiration for how society should/could be?

# A theory of change approach?





# SDGs



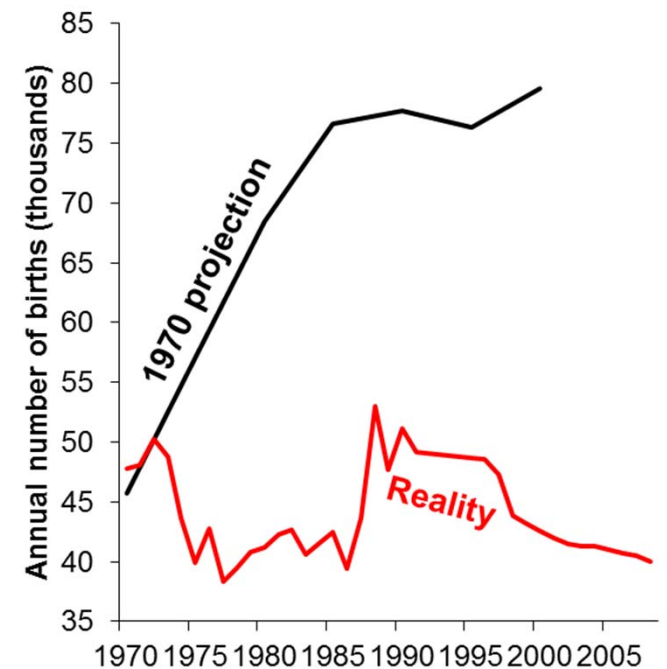
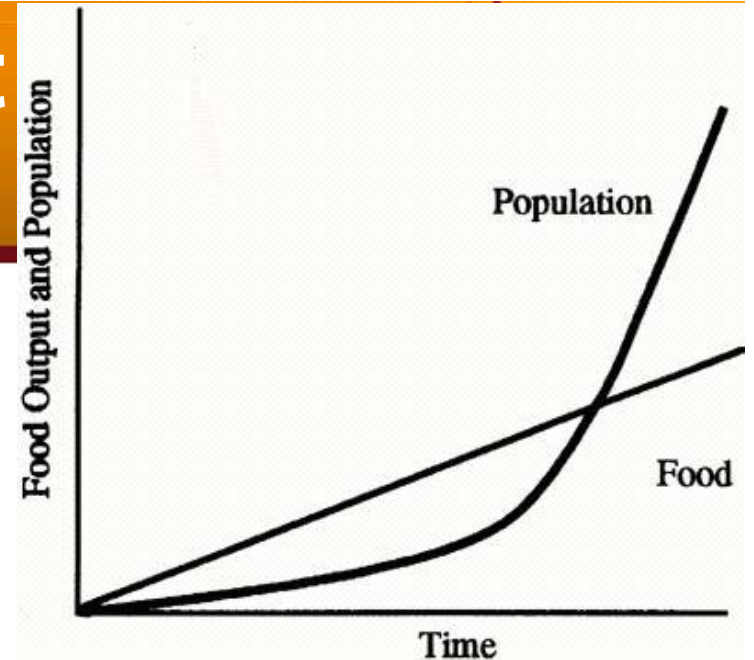
# Can we reconcile?



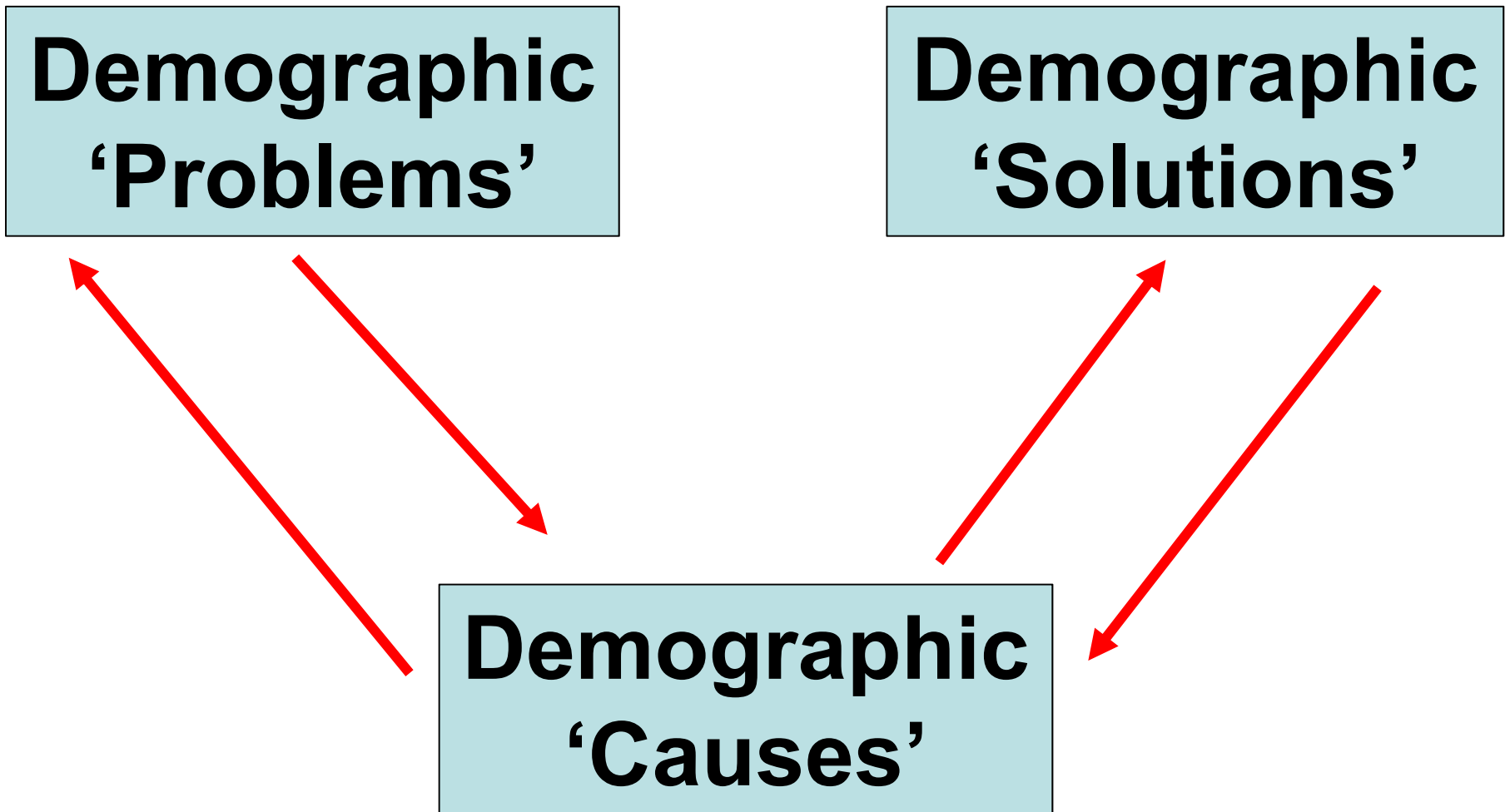
- ‘Silver tsunami’
  - Intuitive, easy to sell
  - Gets research money; sells newspapers
  - Fundamentally inaccurate
- New measures
  - More dynamic and positive; harder to explain
- Theory of change/end point approach
  - Aspirational? Data as baseline and evaluation
  - Universal applicability?

# What do we actually want of these measures?

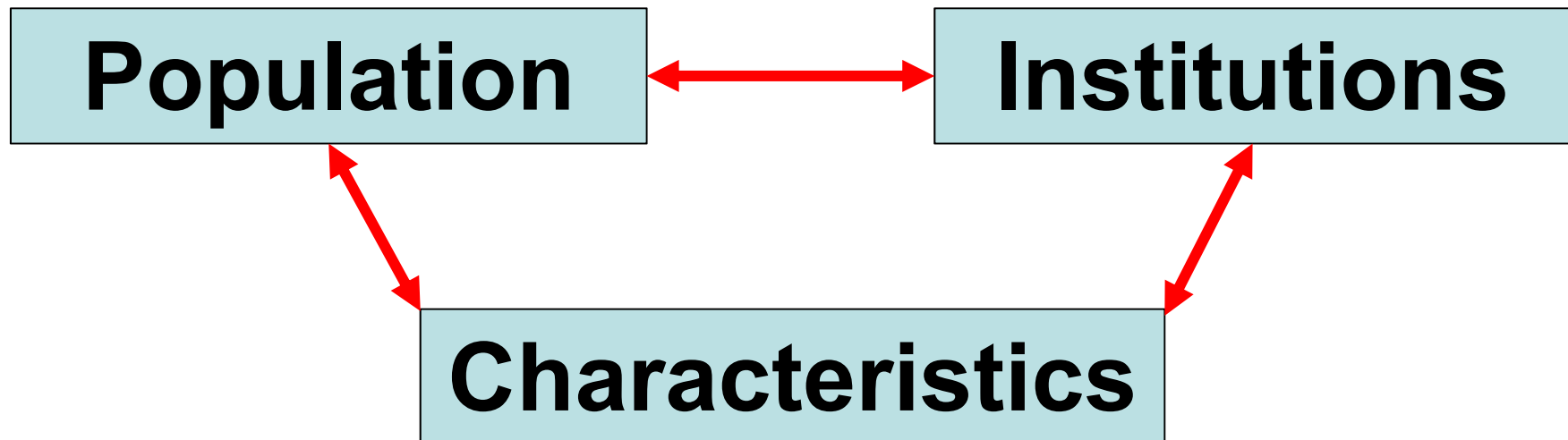
- **What is the point of a projection/forecast?**
- **To show the nature of challenge ahead**
  - *What we need to 'manage'*
  - *Passive*
- **To elicit a response?**
  - Bring a slow-moving issue into sharp focus?



# The uni-dimensional, 'closed loop approach



# An alternative, integrated view



# Applied to China

Stagnation and decline; fewer children

Major reform of systems of childbearing and parenting?

Tackle consequences: Productivity; pension systems; healthcare; filial piety; etc

**Population**

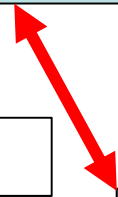
**Institutions**

(Offset thru BRI?)

**Characteristics**

Healthier, better educated, able to save more: **potential for productivity gains and 'demographic metabolism'**

**BUT: high un(der)employment; challenges of productivity gains [reform institutions?]**



# A fundamental problem



- **Static, independent measures**
- ***Dynamic, interdependent issues***
  - POADR more dynamic, but still holds some aspects constant
- Variable outcomes
- Uncertainty; feedback effects
- Almost impossible to model correctly

# A possible way forward?



- A two-dimensional approach
  - *We have to do x because that's what the forecasts say*
  - *We want y, so we have to do x to get there*
- *Multiple prongs*
  - *Different measures for different people*
  - *Integrate different messages*
  - *Need for both REACTIVE and PROACTIVE policies*



# Recognising a multi-dimensional future



- **Embrace uncertainty and interdependence**
- **Scenarios**
  - SSPs (Shared Socioeconomic Pathways)
  - IPCC, IIASA?
- **Translate** qualitative storyline into quantitative measure or forecast?
  - *Build upon assumption after assumption*
- *Some scenarios more favourable than others*

# (Half) conclusions

- Recognise different values of different measures for different people
- Demand – aspiration – uncertainty
- Known knowns, known unknowns etc
- Embrace uncertainty and interdependence
- Scenarios can be helpful mid-way

# To be iconoclastic



- Why do we bother with measuring ageing?
- Too many variables, too many differences
- Pensions, dementia, social security...
- Or mainstreaming ageing?

# APPENDIX

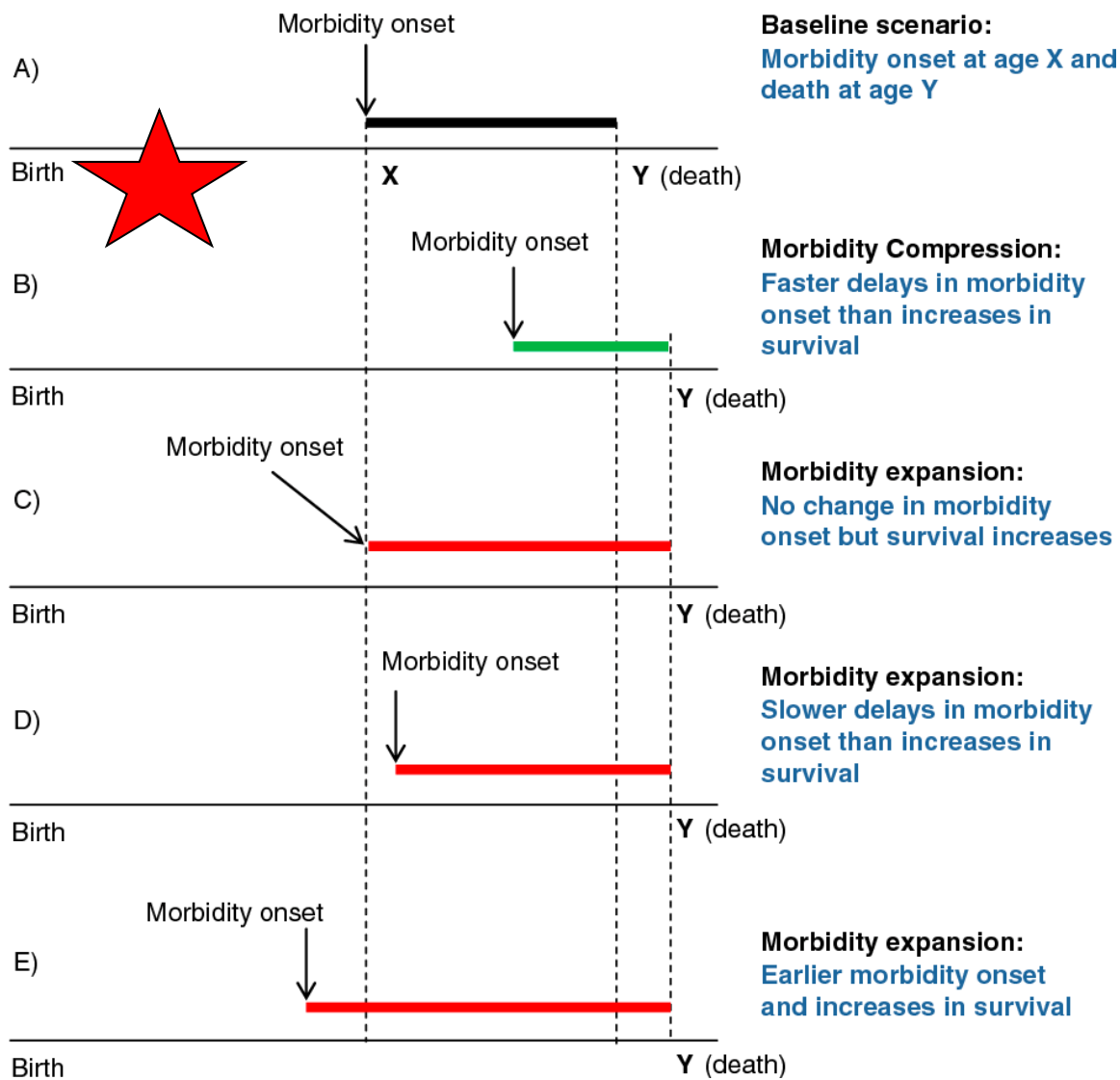


# Dealing with uncertainty



- No. of 75-year old Japanese men
  - With heart disease
  - Still driving a car
  - With disposable income of  $x$
- *GDP growth; tax receipts;*
- *Concepts like dependency? Welfare systems*
- **Danger we craft future according to forecasts; make them come true!**

# Compression of morbidity



# At a whole population level

Area

Thailand

Scenario

Medium-Fast Track Education (SSP2-FT)

Year

1970

2050

2100

Area

Thailand

Scenario

Inequality (SSP4)

Year

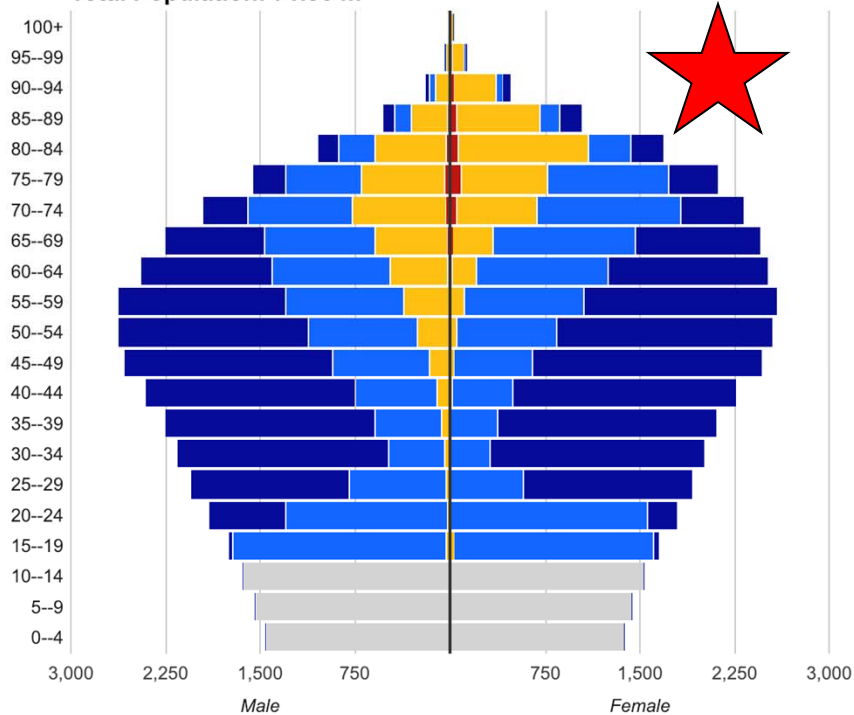
1970

2050

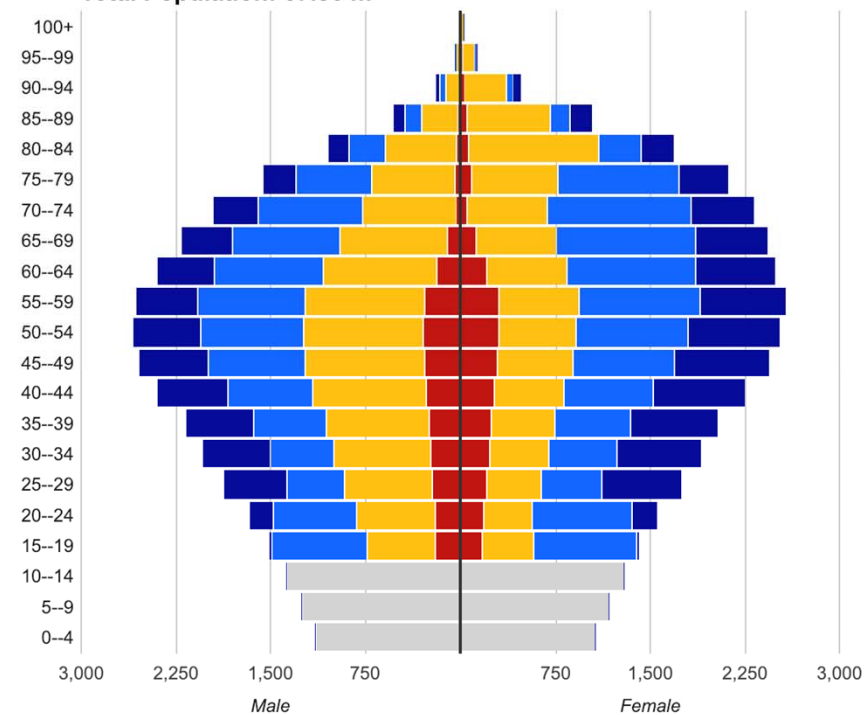
2100

Under 15 No Education Primary Secondary Post Secondary

Total Population: 71.56 m



Total Population: 67.86 m



# Standard critique of 'age boundary' based measures



- **Poor specification of 'problem'**
  - What happens at 65?
- **Poor specification of populations**
  - All >65 dependent?
  - All 18-64 in work?
- **Generalizability**
  - Assumes formal support systems?
- **Ignore dynamic change over time**
  - Health, wellbeing, education, longevity, LE

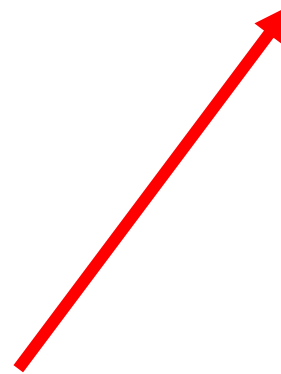
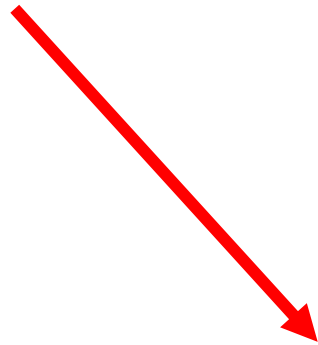


# The uni-dimensional, 'closed loop approach



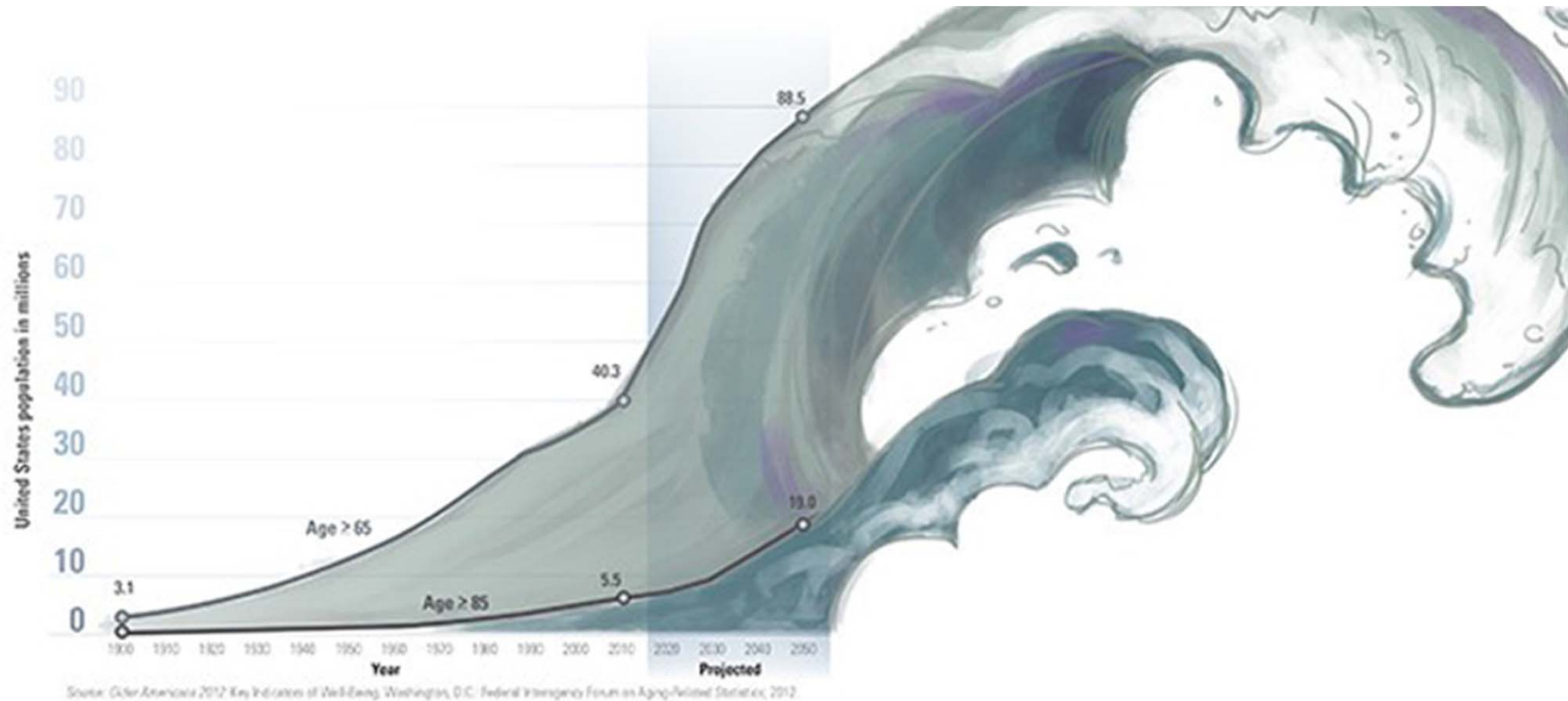
**Demographic  
'Problems'**

**Demographic  
'Solutions'**



**Demographic  
'Causes'**

# The 'silver tsunami': Policy paralysis?



Inevitable; overwhelming; slow moving, existential threat

# The problem with that...



- Policies are not really working
- Or are impossible to operationalize (replacement migration)
- Children don't work (and divert resources)
- Uneven cohort
- Cost (political and economic)
- Assumes a 'optimum'
  - Population size; distribution etc